Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary) of

Cor	nplete if Known		
Application Number 10/631,289			
Filing Date 07/31/2003			
First Named Inventor Hyldig-Nielsen, Jens			
Group Art Unit	Not Yet Assigned		
Examiner Name	Not Yet Assigned		
Attorney Docket No.	BP9804US-CN1		

U.S. PATENT DOCUMENTS						
Examiner	Cite	U.S. Patent Document		Name of Patentee or Applicant	Date of Publication	Pages, Columns, Lines Where
Initials*	No.1	Number	Kind Code ² (if known)	of Cited Document	of Cited Document MM-DD-YYYY	Relevant Passages or Relevant
9/1/ 9/1/4	AS	5,700,636	T T	Sheiness et al.	12/23/97	
9214	ΑT	5,422,277		Connelly et al.	06/06/95	-
农外	AU	5,759,781		Ward et al.	06/02/98	
						

	FOREIGN PATENT DOCUMENTS									
Exar	Examiner Cite		Foreign Patent Document		Name of Patentee or	Date of Publication	Pages, Columns, Lines			
Initia		No. 1	Office ³	Number ⁴	Kind Code ^s (if known)	Applicant of Cited I		of Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	T⁵
97	A	BN		WO97/18325				05/22/97	-	
	[во		WO98/03678			_	01/29/98		
	Г	BP		WO98/15648				04/16/98		
	Ι.	BQ		WO95/32305		Dako A/S		11/30/95		
7	W	BR		WO97/18325		Dako A/S		05/22/97		

			OTHER ART - NON PATENT LITERATURE	DOCUMENTS				
Examine Initials*	Examiner Cite No. 1		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
924	Amann, R.I. et al, Fluorescent-oligonucleotide probing of whole cells for determinative, phylogenetic, and environmental studies in microbiology. J. Bacteriology 172, 762-770 (1990)							
		СВ	Amann, R.I. et al, Combination of 16S rRNA-targeted oligonuc analyzing mixed microbial populations. Appl. and Environ. N					
	CC Amann, R. et al, Identification in situ and phylogeny of uncultured bacterial endosymbionts. Nature 351, 161-164 (1991)							
		CD	Amann, R. I. et al, Phylogenetic identification and in situ detection of individual microbial cells withou cultivation. Microbio. Reviews 59, 143-169 (1995)					
		CE	Bauman, J.G.J. et al, Flow cytometric detection of ribosomal R situ hybridization. Cytometry 9, 517-524 (1988)	NA in suspended ce	lls by fluorescent in			
		CF	DeLong, E.F. et al, Phylogenetic stains: ribosomal RNA-based cells. Science 243, 1360-1363 (1989)	probes for the identi	fication of single			
		CG	DeLong, E.F. et al, Fluorescent, ribosomal RNA probes for clin Diagnos. & Clin. Testing 28, 41-44 (1990)	ical application: a re	esearch review.	·		
	CH Fuchs, B.M. et al, Flow cytometric analysis of the in situ accessibility of escherichia coli 16S rRNA for fluorescently labeled oligonucleotide probes. Appl. and Environ. Microbiol. 64, 4973-4982 (1998)							
971	CI Giovannoni, S.J. et al, Phylogenetic group-specific oligodeoxynucleotide probes for identification of single microbial cells. J. Bacteriology 170, 720-726 (1988)							
Exam Signa			HORLICK	Date Considered	1/30/06	,		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

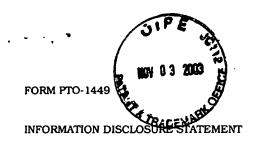
¹ Unique citation designation number. 2 Applicant is to place a check mark here if English language Translation is attached.

220/		Hahn, D. et al, Oligonucleotide probes that hybridize with rRNA as a tool to study Frankia stains in roc
N/M		nodules. Applied and Environ. Microbiol. 56, 1342-1346 (1990)
	СК	Hahn, D. et al, Extraction of ribosomal RNA from soil for detection of <i>Frankia</i> with oligonucleotide probes. Arch. Microbiol. 154, 329-335 (1990)
	CL	Hahn, D. et al, Detection of micro-organisms in soil after in situ hybridization with rRNA-targeted, fluorescently labelled oligonucleotides. J. Gen. Microbiol. 138, 879-887 (1992)
	СМ	Heidelberg, J.F. et al, Enumeration of Vibrio vulnificus on membrane filters with a fluorescently labeled oligonucleotide probe specific for kingdom-level 16S rRNA sequences. Appl. and Environ. Microbiol. 59, 3474-3476 (1993)
	CN	Heiles, H.B.J. et al, In situ hybridization with digoxigenin-labeled DNA of human papillomaviruses (HPV 16/18) in HeLa and SiHa cells. BioTechniques 6, 978-981 (1988)
	со	Herron, P.R. et al, New method for extraction of streptomycete spores from soil and application to the study of lysogeny in sterile amended and nonsterile soil. Appl. and Environ. Microbiol. 56, 1406-1412 (1990)
	СР	Holben, W.E. et al, DNA probe method for the detection of specific microorganisms in the soil bacteria community. Appl. and Environ. Microbiol. 54, 703-711 (1988)
	cQ	Just, T. et al, Flow cytometric detection of EBV (EBER saRNA) using peptide nucleic acid probes. J. Virol. Methods 73, 163-174 (1998)
	CR	Lansdorp, P.M., Close encounters of the PNA kind. Nature Biotech. 14, 1653 (1996)
	cs	Lansdorp, P.M. et al, Telomeres in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997)
	СТ	Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996)
	CU.	Seal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993)
	CV	Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998)
	CW	Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situly hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996)
	СХ	Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols, Horizon Scientific Press, in press.
	CY	Ward, D.M. et al, 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990)
	CZ	Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991)
	DA	Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991)
	DB	Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar Series, 19-37 (1997)
35K	DC	Pluskal, M. et al, Peptide Nucleic Acid Probes and their Application in DNA and RNA Blot Hybridization Analysis. American Society for Biochemistry and Molecular Biology. Abstract #35. 85th Annual Meeting, Washington, DC May 21-25, 1994
400		·
	ļ	

Examiner	4001166	Date	1/20/00
Signature	MURLICA	Considered	1/30/06

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.



ATTY. DOCKET NO.: BP9804US-CN1 APPLICANT: Jens J. Hyldig-Nielsen, et al

SERIAL NO.: 10/631,289 FILING DATE: July 31, 2003 GROUP: Not Assigned

				US PAT	ENT DOCUMENTS			
EXAN	Л.		DOCUMENT				SUB	FILING DATE IF
INIT.	ıl		NUMBER	DATE	NAME	CLASS	CLASS	APPROPRIATE
INIT.	A	Α	4,816,389	Mar. 28, 1989	Sansonetti et al.	\435		Jul. 12, 1985
. 10		В	4,992,364	Feb. 12, 1991	Sansonetti et al.	¥35	7	Jan. 11, 1989
	A	.c	5,041,372	Aug. 20, 1991	Lampel et al.	435	7	Nov. 2, 1988
	A	D	5,147,778	Sep. 15, 1992	Nietupski et al.	435	7	Nov. 29, 1988
	A	E	5,486,454	Jan. 23, 1996	Madonna et al.	435	7	May 17, 1994
	A	F	5,495,008	Feb. 27, 1996	Lane et al.	536\	7	Apr. 17, 1992
	A	.G	5,574,145	Nov. 12, 1996	Barry et al.	536	7	Dec. 22, 1993
	Α	н	5,582,974	Dec. 10, 1996	Nietupski et al.	435	7	Dec. 22, 1993
	A	I	5,612,458	Mar. 18, 1997	Hyldig-Nielsen et al.	530 \ /		Dec. 22, 1994
	A	J	5,648,481	Jul. 15, 1997	Parodos et al.	536 V		Jan. 19, 1995
	Α	K	5.654,417	Aug. 5, 1997	Tarr et al.	536		Apr. 14, 1995
	A	L	5,677,127	Oct. 14, 1997	Hogan et al.	435 /		May 30, 1995
	A	М	5,693,469	Dec. 2, 1997	Hogan	435		May 30, 1995
	Α	N	5,714,321	Feb. 3, 1998	Hogan	435/	1	May 30, 1995
	A	0	5,723,344	Mar. 3, 1998	Mabilat et al.	436	1	Jun. 24, 1994
	A	P	5,888,733	Mar. 30, 1999	Hyldig-Nielsen et al.	43/5		Oct. 2, 1996
	A	9	5,888,734	Mar. 30, 1999	Cremer et al.	4/35	7	May 19, 1993
		R	5,985,563	Nov. 16, 1999	Hyldig-Nielsen et al.	A 35	7	June 5, 1997
1.14				FOREIC	IN PATENT DOCUMENTS	· · · · · · · · · · · · · · · · · · ·		
EXAM	1.	Ĩ	DOCUMENT				SUB	TRANSLATION
INIT.			NUMBER	DATE	COUNTRY	CLASS	CLASS /	YES NO
914	→ B.	A	EP0133288A2	Jul. 25, 1984	EPO			
	В	В	EP0395292A2	Apr. 18, 1990	EPO			
	В	С	EP0497464A1	Jan. 15, 1992	EPO			
	В	D	EP0531798B1	Jan. 9, 1984	EPO		/	
	В	E	EP0632269A1	Jun. 24, 1994	EPO			
	В	F	WO89/11548	Nov. 30, 1989	WIPO	1 1		
	В	G	WO90/01560	Feb. 22, 1990	WIPO	1 X		
	В	H	WO90/01564	Feb. 22, 1990	WIPO	- /\		
\top	В	I	WO92/15708	Sep. 17, 1992	WIPO	1 / 1		
十	B	J	WO94/19490	Sep. 1, 1994	WIPO	 		
	В	К	WO95/32305	Nov. 30, 1995	WIPO	1/		
	В	L	WO96/17956	Jun. 13, 1996	WIPO	1/		·
337	BI	М	WO97/14026	Apr. 17, 1997	WIPO	1/	/	

EXAMINER: HORLICK DATE CONSIDERED: 1/30/06

. • • •			SIP & SE	cc/sub	
all BN	WO97/18325	May 22, 1997	WIPO NO 63 200		
BO BO	WO98/03678	Jan. 29, 1998	WIPO W		
ВР	WO98/15648	Apr. 16, 1998	WIPO		

		OTHER PUBLICATIONS
921	CA	Amann, R.I. et al, Fluorescent-oligonucleotide probing of whole cells for determinative, phylogenetic, and environmental studies in microbiology. J. Bacteriology 172, 762-770 (1990)
1	СВ	Amann, R.I. et al, Combination of 16S rRNA-targeted oligonucleotide probes with flow cytometry for analyzing mixed microbial populations. Appl. and Environ. Microbiol. 56, 1919-1925 (1990)
\prod	СС	Amann, R. et al. Identification in situ and phylogeny of uncultured bacterial endosymbionts. Nature 351, 161-164 (1991)
	CD	Amann, R. I. et al, Phylogenetic identification and in situ detection of individual microbial cells without cultivation. Microbio. Reviews 59, 143-169 (1995)
	CE	Bauman, J.G.J. et al, Flow cytometric detection of ribosomal RNA in suspended cells by fluorescent in situ hybridization. Cytometry 9, 517-524 (1988)
	CF	DeLong, E.F. et al, Phylogenetic stains: ribosomal RNA-based probes for the identification of single cells. Science 243, 1360-1363 (1989)
	CG	DeLong, E.F. et al, Fluorescent, ribosomal RNA probes for clinical application: a research review. Diagnos. & Clin. Testing 28, 41-44 (1990)
	СН	Fuchs, B.M. et al, Flow cytometric analysis of the in situ accessibility of escherichia coll 16S rRNA for fluorescently labeled oligonucleotide probes. Appl. and Environ. Microbiol. 64, 4973-4982 (1998)
	CI	Giovannoni, S.J. et al, Phylogenetic group-specific oligodeoxynucleotide probes for identification of single microbial cells. J. Bacteriology 170, 720-726 (1988)
	ယ	Hahn, D. et al, Oligonucleotide probes that hybridize with rRNA as a tool to study <i>Frankia</i> stains in root nodules. Applied and Environ. Microbiol. 56, 1342-1346 (1990)
	СК	Hahn, D. et al, Extraction of ribosomal RNA from soil for detection of Frankia with oligonucleotide probes. Arch. Microbiol. 154, 329-335 (1990)
	CL	Hahn, D. et al, Detection of micro-organisms in soil after in situ hybridization with rRNA-targeted, fluorescently labelled oligonucleotides. J. Gen. Microbiol. 138, 879-887 (1992)
	СМ	Heidelberg, J.F. et al, Enumeration of Vibrio vulnificus on membrane filters with a fluorescently labeled oligonucleotide probe specific for kingdom-level 16S rRNA sequences. Appl. and Environ. Microbiol. 59, 3474-3476 (1993)
	CN	Heiles, H.B.J. et al, <i>In situ</i> hybridization with digoxigenin-labeled DNA of human papillomaviruses (HPV 16/18) in HeLa and SiHa cells. BioTechniques 6, 978-981 (1988)
	СО	Herron, P.R. et al, New method for extraction of streptomycete spores from soil and application to the study of lysogeny in sterile amended and nonsterile soil. Appl. and Environ. Microbiol. 56, 1406-1412 (1990)
	СР	Holben, W.E. et al, DNA probe method for the detection of specific microorganisms in the soil bacterial community. Appl. and Environ. Microbiol. 54, 703-711 (1988)
	cð	Just, T. et al, Flow cytometric detection of EBV (EBER snRNA) using peptide nucleic acid probes. J. Virol. Methods 73, 163-174 (1998)
	CR	Lansdorp, P.M., Close encounters of the PNA kind. Nature Biotech. 14, 1653 (1996)
	CS	Lansdorp, P.M. et al, Telomeres in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997)
	СТ	Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996)
	CU	Seal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993)
	CV	Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome- labeled PNA probe. BioTechniques 24 , 472-76 (1998)
	CW	Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3 , 358-363 (1996)
	СХ	Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols , Horizon Scientific Press, in press.
JAH	CY	Ward, D.M. et al. 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990)

EXAMINER:	HURLICK	DATE CONSIDERED:_	1/30/06
-----------	---------	-------------------	---------

12/1	A CZ	Weisburg, W.G. et al. 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991)
	DA	Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991)
	DB	Stefano, K. et al. Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetics Diseases. 948 IBC Library Series, 19-37 (1997)
R	J DC	Pluskal, M. et al, Peptide Nucleic Acid Probes and their Application in DNA and RNA Blot Hybridization Analysis. American Society for Biochemistry and Molecular Biology. Abstract # 35. 85th Annual meeting, Washington, DC May 21-25, 1994

EXAMINER: HURLICK DATE CONSIDERED: 1/30/06